



PATENT  
2185-0519P

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Applicant: WATANABE, T. Conf.: 5637  
Appl. No.: 09/800,930 Group: 1713  
Filed: March 8, 2001 Examiner: R. D. HARLAN  
For: OLEFIN POLYMERIZATION CATALYST AND  
PROCESS FOR PRODUCING OLEFIN POLYMER

REQUEST FOR RECONSIDERATION

MS AF

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

November 24, 2003

Sir:

In reply to the Examiner's Advisory Action dated September 8, 2003, the following remarks are respectfully submitted in connection with the above-identified application.

REMARKS

Claims 1-3, 5-9 and 10-13 remain pending in the above-identified application, with claims 1-3 and 5-9 standing ready for further action on the merits, and claims 10-13 being withdrawn from consideration based upon an earlier Restriction Requirement.

***Claim Rejection Under 35 USC § 103***

Claims 1-3 and 5-9 have been rejected under 35 USC § 103(a) over Yamamoto et al. (US 6,121,401) in view of Lee et al. (Journal of Molecular Catalysts A: Chemical 132 (1998) 231-239). Reconsideration and withdrawal of the outstanding rejection is requested based upon the following considerations.

Initially, the Examiner is requested to consider remarks set forth in Applicants' prior responses of August 18, 2003 (particularly, pages 2-5) and December 18, 2002 (particularly, pages 7-9), since such remarks are pertinent to a consideration of the patentability of the present invention. Said remarks in the earlier responses of August 18, 2003 and December 18, 2002 are incorporated herein by reference in their entirety.

*The Present Invention and Its Advantages*

The present invention relates to an olefin polymerization catalyst prepared by using a modified aluminumoxy compound as one

component thereof, and a process for producing an olefin polymer with said catalyst.

While processes for producing an olefin polymer utilizing a metallocene complex have been reported previously, the present invention provides unexpected and advantageous properties and results, in that the present invention provides an olefin polymerization catalyst giving an olefin polymer of higher molecular weight, in addition to a process for producing an olefin polymer having a high molecular weight using said catalyst.

#### Distinctions Over the Cited Art

The modified aluminumoxy compound (C) used in claim 1 is obtained by contacting an aluminumoxy compound (C1) with a boron compound (C2), and the components (C1) and (C2) respectively correspond to the components (B2) or (B3) (cyclic or linear alumoxane) and (C1) (a boron compound represented by the formula  $BQ^1Q^2Q^3$ ) in Yamamoto et al. (US 6,121,401).

Further, in the instant claim 1, it is essential for preparing an olefin polymerization catalyst to contact the component (A) (transition metal compound) with the modified aluminumoxy compound (C) obtained by contacting an aluminumoxy compound (C1) with a boron compound (C2), in other words, to contact the component (A) after contacting component (C1) with (C2), and when the symbols of

the components in the instant claim are changed to those corresponding to Yamamoto et al., in order to avoid confusion, to contact the component (A) after contacting ((B2) or (B3)) with (C1).

On the other hand, though Yamamoto et al. (US 6,121,401) teaches the use of the components (B2), (B3) and (C1) as described above, it is silent with respect to the order of contact of these components. Further, Yamamoto et al. teaches in working Examples only that the component (C2) (triphenylmethylnetrakis(pentafluorophenyl)borate) is contacted after contacting the component (B1) (triisobutylaluminum) with the component (A) (dimethylsilyl(tetramethylcyclopentadienyl)(3-tert-butyl-5-methyl-2-phenoxy)titanium dichloride).

Namely, Yamamoto et al. fails to teach or suggest the contact order of the components specified in the instant claim 1.

Furthermore, Yamamoto et al. does not provide any motivation for preparing the olefin polymerization catalyst by contacting the component (A) with the modified aluminumoxy compound obtained by contacting ((B2) or (B3)) with (C1).

Accordingly, based upon the above considerations, it is clear that nowhere in the cited references is there provided any motivation or teaching, which would allow one of ordinary skill in the art to arrive at the present invention as follows. Absent such

motivation in the cited art that would have guided one of ordinary skill in the art to arrive at the present invention as claimed, the outstanding rejection cannot be maintained.

*Rejoinder of Non-Elected Claims*

Based on Applicants' belief that instant claims 1-3 and 5-9 are allowable, the Examiner is respectfully requested to rejoin process claims 10-13.

CONCLUSION

Based upon the remarks presented herein, the Examiner is respectfully requested to issue a Notice of Allowance clearly indicating that each of pending claims are allowable and patentable under the provisions of Title 35 of the United States Code.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John W. Bailey (Reg. No. 32,881) at the telephone number below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Appl. No. 09/800,930

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By 

John W. Bailey, #32,881

JWB/enm  
2185-0519P

P.O. Box 747  
Falls Church, VA 22040-0747  
(703) 205-8000